**Learning Progression for:**Reasons for the Seasons

**Prerequisite Knowledge**Earth is spherical.  
Earth rotates, causing day & night.  
Earth orbits the sun once a year.  
Earth spins once every 24 hours.

**Activity:**

* “What shape is Earth’s orbit?”

**Assessment:**

Preassessment Probe

* Ideas questionnaire

Earth’s   
Orbit

GLE 1.2.5 1.3.7

EALR 4 ES1

**Later big ideas that build on this big idea include:**

EALR 4: Earth Systems, Structures, and Processes

EALR 4: Earth and Space

EALR 1: Systems

Hours of Daylight & Seasons

GLE 1.3.7

NSES 4B/M13

Temperatures Around the World

NSES 4B/M12, M13

**Activity:**

* Graphing Daylight Hours (teams)

**Assessment:**

* Preassessment: “What do you think about daylight hours around the world?”
* Graph Check
* Team/Self Evaluation

**Activity:**

* Graphing Yearly Temperatures (teams)

**Assessment:**

* Concept Map

Tilt of the Earth

GLE 1.3.7

EALR 4 ES2A

Intensity of Sunlight

GLE 1.3.7

EALR 4 ES2A

NSES 4E/M6, M12, M13

**Activity:**

* Modeling Earth Activity
* Seasons-Orbit Game

**Assessment:**

* Exit Card: “What do you know about Earth’s orbit and tilt? Draw a diagram.”

**Activity:**

* Investigating Light Intensity

**Assessment:**

* Journal Check – Rubric
  + Making/recording observations during activity, making data table.